

From the:
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 29 MAR 2005

Applicant's or agent's file reference
FP21015

FOR FURTHER ACTION
See paragraph 2 below

International application No.

PCT/AU2005/000061

International filing date (day/month/year)

20 January 2005

Priority date (day/month/year)

20 January 2004

International Patent Classification (IPC) or both national classification and IPC

Int. Cl.⁷ G01N 21/21, 33/36

Applicant

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU

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WRITTEN OPINION OF THE
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International application No.

PCT/AU2005/000061

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2005/000061

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1 - 23	YES
	Claims	NO
Inventive step (IS)	Claims 2 - 4, 6 - 9	YES
	Claims 1, 5, 10 - 23	NO
Industrial applicability (IA)	Claims 1 - 23	YES
	Claims	NO

2. Citations and explanations:

The following documents identified in the International Search Report have been considered as relevant for the purposes of this report:

D1: Standard Test Method for Maturity of Cotton Fibers (Sodium Hydroxide Swelling and Polarized Light Procedures). ASTM Designation D1442-80.

Novelty (N)

D1 discloses a method and apparatus for measuring the maturity of cotton fibres which includes exposing the sample of fibres to polarized light, capturing an image through crossed polar lenses and a compensator plate and comparing the interference colours measured with known reference data. However, D1 discloses the manual comparison of captured images with reference data and fails to disclose the use of a computer that is capable of analysing the images. Claims 1 - 23 therefore meet the criteria set forth in PCT Article 33(2) for novelty.

Inventive Step (IS) (Claims 1, 5, 10 - 23)

The only difference between the invention defined in claims 1 & 17 and the disclosure of D1 lies in the use of a computer to analyse the captured images. The problem to be solved by the current invention lies in the discrepancies in measurement that arise due to subjective assessments of the images by human operators, and in the slowness of the test. The obvious solution to this problem would be to automate the process of comparing the colour of the images with reference data. The use of a computer to achieve this would have been obvious to the person skilled in the art in light of the now common use of image analysis software in a wide range of technical fields and in particular in the analysis of microscope images. Claims 1 & 17 therefore lack an inventive step in light of D1. The features of dependent claims 5, 10 - 16 & 18 - 23 are either also disclosed in D1, or are features that would be inherent once a computer is used to conduct the analysis. These claims therefore also lack an inventive step in light of D1.

The features of the remaining claims (claims 2 - 4 & 6 - 9), relating to the calculation of the area of interference colours or of the fibre, are not disclosed or suggested by any of the identified prior art documents, and therefore these claims meet the requirements of Articles 33(2) & 33(3) PCT with regard to novelty and inventive step.

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